A Quarter Century in Space

In 1962, Canada became the world's third nation, behind the Soviet Union and the United States, with a satellite in orbit. Alouette 1 provided a wealth of information on the ionosphere and laid the foundation not only for Canada's later communications satellites but also for a widely respected space science program that has expanded to include research into the ozone layer, cosmic rays, aurora, magnetic fields and stars in distant galaxies.

Since then, Canada has achieved a significant number of "firsts" in space, including the launch of Anik A1 in 1972 to establish the world's first domestic communications satellite system. In 1981, Canadarm, the robot arm developed for the U.S. space shuttle, made its debut flight and has gone on to perform ever-more-demanding tasks on subsequent flights, earning international acclaim for Canadian technological prowess.

A major milestone in the Canadian space program was reached in October 1984, when Canada's first astronaut in space, Marc Garneau, hurtled into orbit aboard the space shuttle Challenger and successfully carried out 10 Canadian experiments in the areas of space science, life sciences and space technology.

One of the cornerstones of the Canadian Space Program has been international partnership. Canada has cooperated closely on projects with the U.S. for 25 years and with the European Space Agency for 10 years. Other partners have included France, Brazil, Japan, Sweden and the U.S.S.R.

As the manned space program opens up a wealth of new opportunities, Canada maintains its traditional strength in the design, construction and operation of satellite systems for telecommunications and remote sensing. Canadian-designed satellite systems not only provide TV, radio, telephone and data transmission services to homes and offices throughout Canada but are exported around the world. Remote sensing satellites, like eyes in the sky, take detailed photographs of the earth's geological formations, farmlands, lakes and rivers, forests, and oil spills. These photographs have a variety of uses, including resource management, oil and mineral exploration, weather forecasting, crop inventory and ocean mapping.

Indeed, many aspects of people's daily lives have been affected by advances in space technology, from satellite weather forecasts to long distance telephone conversations. Canada's space industry helps to link a large and diverse country stretching over 5 000 km from coast to coast, creating new jobs and services and helping shape the technological society of the future.

Whether using satellites in space for remote sensing, communications, search and rescue or navigation; training a team of astronauts for future missions in space; investigating space phenomena like the Northern Lights; or probing the deeper mysteries of the universe; Canada has won worldwide recognition for its space-faring competence.